

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

281.9
198
3

Washington, D.C.

June 1956

USDA
NAT'L AGRIC LIBRARY
2001 DEC -3 A 7:33
CURRENT SERIAL RECORDS
ACQ/SERIALS BRANCH

Effects of ACREAGE-ALLOTMENT PROGRAMS

1954
and
1955

a summary report

Production Research Report No. 3

U.S. DEPARTMENT OF AGRICULTURE
Agricultural Research Service

CONTENTS

	<i>Page</i>
Highlights.....	1
Background of the study.....	3
What the programs called for.....	5
Overall effects of programs.....	6
Effects in selected areas.....	12
Effects on cotton farms.....	12
Effects on wheat farms.....	13
Effects on farms in the commercial corn area.....	16
Effects on rice farms.....	17

Prepared in
Production Economics Research Branch, Agricultural Research Service

Washington, D. C.
June 1956

Effects of ACREAGE-ALLOTMENT PROGRAMS

1954 and 1955 a summary report

HIGHLIGHTS

The acreage-allotment, marketing-quota, and associated price-support programs that have been in effect during the last 2 years have had little influence on total farm production, although the production of specific commodities has been modified considerably.

An 8-percent reduction from 1953 to 1955 in the total production of 4 of the basic allotment crops—cotton, wheat, corn, and rice—was more than offset by increases in production of nonallotment crops. Land and other resources diverted from production of these crops were used mainly to grow feed grains other than corn, oilseed crops, rye, and hay.

Acreage allotments, coupled with price supports, have not been effective in controlling the acreage of corn, particularly where the corn is fed to livestock on the farm on which it is grown.

Most producers of cotton, wheat, and rice complied with the acreage allotments and marketing quotas in effect for these crops, but only 40 percent of the farmers in the commercial corn area complied with corn allotments. The harvested acreage of corn decreased only 1 percent between 1953 and 1955 compared with 30- and 31-percent reductions in wheat and cotton and a 28-percent reduction in rice (between 1954 and 1955).

Allotment programs that control acreage do not always control production to the same degree to

which acreage is reduced. With acreage restricted, producers tend to step up the use of fertilizer and other yield-increasing practices. Yields of wheat increased by 15 percent and yields of cotton by 28 percent between 1953 and 1955. Yields of rice increased by 16 percent between 1954 and 1955. Much of this increase in yield probably would have been accomplished without acreage allotments, but the allotment programs undoubtedly accelerated the use of yield-increasing practices. The smaller acreage of cotton was concentrated on the best land, and a higher proportion of the wheat acreage was planted on fallow.

Despite important shifts in acreage of individual crops, allotment programs have affected major uses of land very little. The total planted acreage of all field crops decreased only 1 percent from 1953 to 1955; relatively little land was shifted from harvested crops to pasture.

Allotment programs of the last 2 years have not induced any significant shift to conservation systems of farming. Farmers generally have been reluctant to make the capital investments required for improved pasture and for forage production for roughage-consuming livestock because of their desire to continue production of the more profitable allotment crops and because of uncertainties as to the size of future allotments.

The rapid rate of increase in carryover stocks of most allotment crops has been reduced by the acreage-allotment programs. Only moderate additions to carryover stocks of wheat, corn, and rice are expected from the 1955 crop. Substantial additions to carryover stocks of cotton are expected only because of record yields.

Diversion of land and other production resources from allotment crops to feed grains other than corn resulted in a 10-percent increase in production of feed grains and an accumulation of total stocks of feed grains at record levels. The investments required in total CCC stocks were smaller, however, than they would have been because the additions to stocks of feed grains were less than the prospective additions to stocks of wheat, cotton, and rice.

The expansion in production of feed grains and the lower prices of these grains tended to encourage an expansion in production of grain-consuming livestock. However, much of the 6-percent increase in this type of livestock that occurred between 1953 and 1955 probably would have occurred without allotment programs. There was no increase in these years in roughage-consuming types of livestock; it would take much longer than 2 years for acreage-allotment programs to bring about a significant increase in these types. The temporary nature of the present programs is not conducive to such long-term shifts.

The acreage-allotment and associated price-support programs tended to support farm income from crops. Although the total farm value of crop production decreased from 1953 to 1955, it would have decreased even more if production of the allotment crops had continued at preallotment levels and if prices had not been supported by Government programs.

In the cotton areas studied.—In these areas, incomes were higher in 1955 than in 1953 because of higher yields, an expansion of alternative crops, and reduced cotton-production expenses. Higher yields in 1955 than in 1953 were due to better weather, use of more fertilizer and other improved cultural practices, and the concentration of a smaller acreage of cotton on the better land.

In most of the areas studied, farmers were in position to make adjustments, and land diverted from cotton was used to produce other crops—chiefly feed grains, plus soybeans in the Mississippi Delta, and specialty crops in the San Joaquin Valley of California. In the Clay Hills of Mississippi and Tennessee and the Southern Piedmont of

South Carolina and Georgia, where alternatives were more limited, from one-fourth to two-fifths of the diverted acreage was idle in 1955. In all areas studied, unrestricted production of cotton would have been preferred if it could have been achieved without disastrous price effects. Also, the larger volume of cotton could have been produced at a lower cost per unit. If cotton had been produced in 1955 at preallotment levels in the areas studied, farmers could have received prices from 5 to 18 percent lower without any sacrifice in net farm incomes, but they would have produced 20 to 56 percent more cotton.

In the Piedmont, Clay Hills, and Delta areas, many cropper and share-tenant families left the farms as a result of the reduction in cotton acreage. Despite this migration, the acreage of cotton per worker in 1955 was only three-fourths the acreage per worker in 1953.

In the wheat areas studied.—In many of these areas, farm production and farm returns were more affected by the weather than by acreage allotments and marketing quotas. In north-central North Dakota and in west-central Kansas, both production and returns on wheat farms generally were higher in 1955 than in 1953 because yields in 1953 had been restricted greatly by drought and rust. Had average or normal yields prevailed in both 1953 and 1955, and had prices remained constant, farm returns in these and other wheat areas studied would have declined with the decline in acreage planted to wheat. Alternative uses for land are more restricted in the drier wheat areas than in most farming areas.

Diverted acreage in the wheat areas was used mainly for production of feed grains and for summer fallow. Some acreage was used for flaxseed in North Dakota and some for dry peas in the Northwest. These uses generally are less attractive than wheat. If farmers had been permitted to grow the same acreage of wheat in 1955 as in 1953, and if normal yields had prevailed, they could have maintained their 1955 incomes with up to 24-percent reductions in the 1955 support price of wheat, but production would have been 20 to 50 percent larger than in 1955.

In the corn areas studied.—In the corn areas, compliance with corn-acreage allotments was limited chiefly to cash-grain farmers and farmers who were allotted an acreage at least as large as the acreage they intended to plant anyway. Livestock farmers had little incentive to comply with corn allotments. They were not interested in price

supports and no other penalties were involved. In order to avoid payment of penalties, most wheat growers in these same areas either complied with their wheat allotments or grew no more than 15 acres of wheat, the quantity that any farmer could market without penalty.

The effect of reductions in acreages of corn on compliance farms was more than offset by other adjustments, which included: Increases in the acreages of corn on noncompliance farms; increases in use of fertilizer and other improved practices on both compliance and noncompliance farms; and increases in acreages and production of feed grains other than corn. In both the Iowa and Illinois areas, total production of feed grains increased rather than decreased from that of 1953, although it was lower than it would have been without the acreage-allotment program.

Land diverted from corn and wheat was used primarily to produce other feed grains and soybeans. Only small acreages went into hay or rotation pasture. The program had no notable effects on conservation in the two years studied.

Compliance with corn allotments was profitable for farmers who sold corn, but not for those who fed the corn.

In the rice areas studied.—In these areas, most farmers complied with their allotments or planned to do so. Most of the land diverted from rice was left idle, except that much of it in Louisiana was pastured and in California, fallowed. If normal yields and 1955 prices had prevailed, the farming systems of 1955 would have provided net farm incomes only 80 to 92 percent as large as those to be expected with the preallotment acreages.

In all areas studied.—In all areas studied the effect of allotment programs on farm income depended partly on the level of support prices in relation to the prices that would have been received if no price support had been available, and partly on the productive use that could be made of the land and other resources released by the allotment programs.

Effective use of the land, labor, and equipment released depended on opportunities for (1) shifting the acreage diverted to other income-producing uses, (2) more intensive use of both allotment and diverted acreages by applying more fertilizer and other improved practices, (3) rental or purchase of additional land, and (4) employment off the farm.

BACKGROUND OF THE STUDY

The study summarized in this publication was initiated in July 1955 in response to a request from the Appropriations Committees of the 84th Congress that the Agricultural Research Service, U. S. Department of Agriculture “make a special study of (a) the effect on farm income and the general economy of the United States of acreage reductions imposed on 1954 and 1955 crops, and (b) the most satisfactory solution to this problem, including the encouragement of sound soil conservation practices upon land diverted from production under such acreage restrictions.”^{1 2}

The study was designed chiefly to analyze the national and regional effects of the acreage-allotment and marketing-quota programs and to appraise, in a number of selected areas, the effect of

acreage-reduction programs on acreage and production of allotted crops and other crops, income, and conservation practices. The areas selected for study were those in which wheat, upland cotton, corn, or rice were the main crops. No analysis of the peanut and tobacco allotment programs was attempted because of the relatively small acreages involved and the fact that, unlike the other programs, the peanut and tobacco allotments have been continuously in effect.

No attempt was made in this study to find complete and adequate solutions to the complex and chronic problem of surplus crops and acreage diversion because it was recognized that such solutions could not be developed quickly.

In planning and conducting the study, the Agricultural Research Service obtained the counsel and assistance of other agencies in the Department of Agriculture and of the State experiment stations. The Experiment Station Committee on Organization and Policy voted to cooperate in the

¹ Agricultural and Farm Credit Administration Appropriation bill, 1956. U. S. Senate, Rept. 216, 84th Cong., 1st Sess. 1955.

² A more detailed report of this study is in preparation.

study and designated a representative from each of the four experiment-station regions to advise in the development of study plans. The experiment station in each State in which field studies were initiated cooperated in planning and conducting the study in that State.

The four designated regional representatives of the State experiment stations—George Brandow, Pennsylvania; George Montgomery, Kansas; T. R. Hedges, California; and R. J. Saville, Mississippi—assisted representatives of the Agricultural Research Service, Soil Conservation Service, Agricultural Conservation Program Service, Commodity Stabilization Service, Agricultural Mar-

keting Service, and the Office of Experiment Stations, in the Department in developing plans for the study and in reviewing the progress report. However, neither the representatives of the State experiment stations nor the representatives of Department agencies other than the Agricultural Research Service participated in developing the conclusions reached or are responsible for the interpretations made. This report was prepared in the Production Economics Research Branch, Agricultural Research Service, U. S. Department of Agriculture. It is not possible here to give recognition to all those who made significant contributions to it.

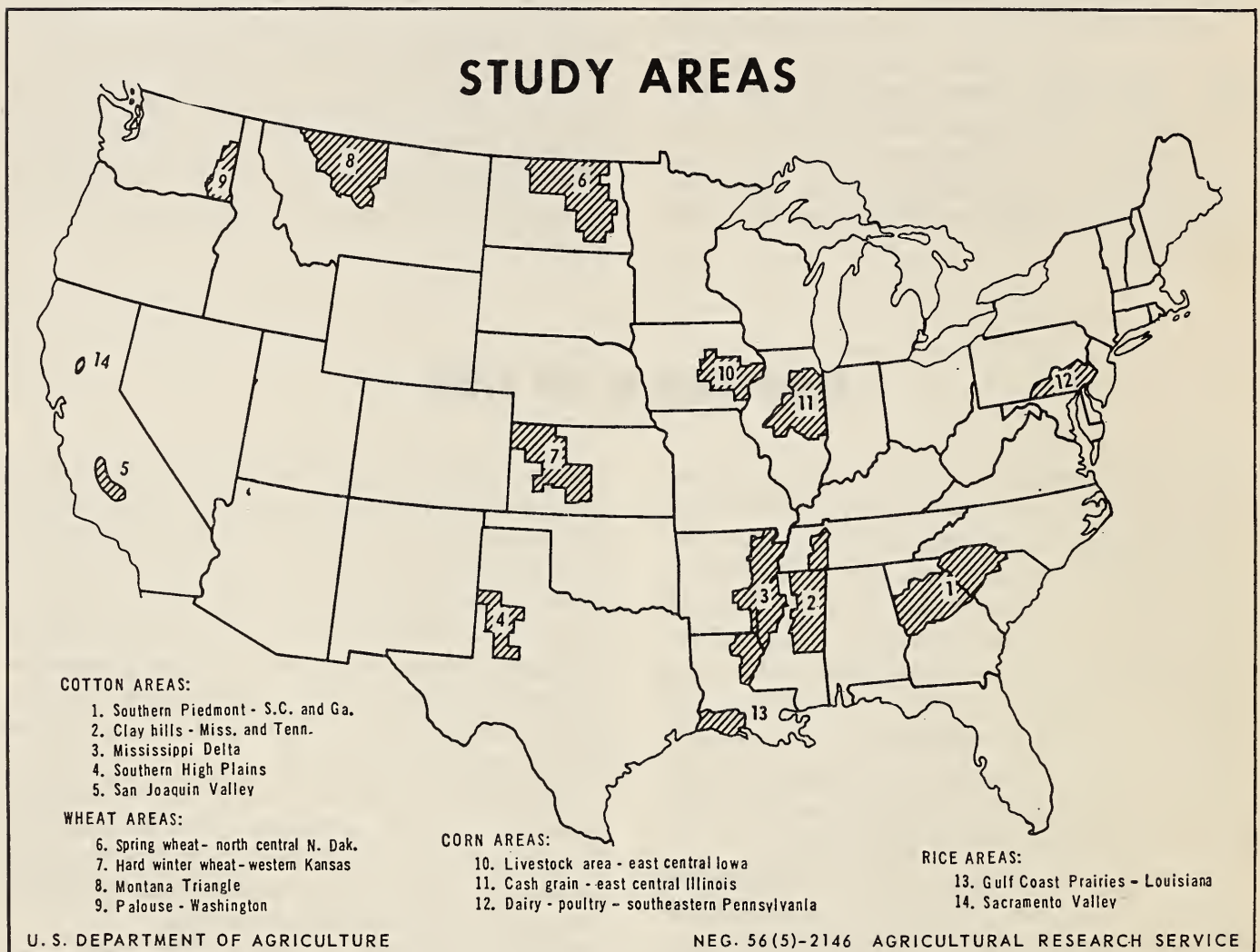


Figure 1.—The effect of acreage allotments in different farm situations was appraised by an enumerative survey of a cross section of farmers in 14 selected wheat, cotton, corn, and rice areas. In all, nearly 3,000 farmers were interviewed.

In this report, the appraisal of effects of the allotment programs in specific farm situations is based primarily on results of an enumerative survey of a cross section of farmers in 14 selected wheat, cotton, corn, or rice type-of-farming areas; nearly 3,000 farmers were interviewed (fig. 1). The survey was designed to learn from farmers who produced one or more of the 4 allotment crops the effects of acreage-reduction programs on: Acreage and production of the specified allotment crops and of alternative crops and livestock; farm practices; farm tenure; conservation; and farm income. In addition, they were asked questions that would bring out their reasons for changes or

lack of changes in their farming programs. When feasible, the relative productivity of diverted acreage as compared with the acreage retained in allotment crops was determined. In a few selected areas, the changes in land use reported by the individual farmers interviewed were compared with land-use-capability data that had been developed by Soil Conservation Districts.

To illustrate the effects of changes in farming on farmers' incomes and expenses, changes in net income have been calculated for representative types and sizes of farms found in each of the study areas.³

WHAT THE PROGRAMS CALLED FOR

Acreage-allotment and marketing-quota programs were put into effect in 1954 and 1955 under the Agricultural Adjustment Act of 1938, as amended, to bring production of certain basic crops into better balance with market outlets. Both acreage allotments and marketing quotas were in effect for wheat and cotton in 1954 and 1955 and for rice in 1955; only acreage allotments were in effect for corn in 1954 and 1955 and these applied only to the commercial corn-producing area. There were no controls on rice in 1954.

Large stocks of wheat, cotton, and corn had accumulated from the 1952 and 1953 crops. In these years, exports had decreased and domestic production had increased from the levels of 1950 and 1951. Total stocks of wheat, cotton, and corn at the end of the 1953 marketing year and of rice at the end of the 1954 marketing year, expressed as percentages of total disappearance for domestic use and exports in the 1953 marketing year, have been estimated as follows:

Crop :	Percentage of disappearance
Wheat -----	108
Cotton -----	78
Corn -----	30
Rice -----	62

Carryover stocks on hand before the imposition of allotment programs in 1954 were much larger than normally would be considered adequate for reserves. Large stocks plus concurrent production resulted in total supplies that were abnormally large in relation to market outlets. Because

of these large supplies, levels of price support for wheat, rice, and corn were reduced in 1955. Support for cotton was set at 90 percent of parity.

With the imposition of acreage allotments, price support under Government programs was restricted to the production from fewer acres of wheat, cotton, corn, and rice. Land diverted from allotment crops has been available for other uses without restriction.

Large reductions in basic crops.—Acreage-allotment programs called for large reductions in acreages of wheat, cotton, and corn in 1954 and 1955 and in acreage of rice in 1955. Allotment programs had not been in effect for these crops during the previous decade, except in 1950.

Programs called for a total reduction of nearly 21 million acres in the harvested acreage of wheat, cotton, and corn from 1953 to 1954 and a reduction of 27 million acres in acreages of these crops and of rice between 1953 and 1955. These 4 crops accounted for nearly half of the 341 million acres of all field crops harvested in 1953. The total reduction in the 4 allotment crops from 1953 to 1955 was equivalent to 8 percent of the total area of all

³ In this "budgetary analysis," data from the Commercial Family-Operated Farms series were used in study areas for which such data were available. This series, maintained by the Production Economics Research Branch, Agricultural Research Service, is a continuing analysis in which information on size of farm, crop and livestock production, production inputs, expenditures, and income is kept current and is published for some 27 types of farms in various major type-of-farming areas.

field crops. Percentage reductions in the harvested acreages of individual crops required under allotments were as follows:

	Reduction 1953 to 1954 (percent)	Reduction 1953 to 1955 (percent)
Wheat.....	15	24
Upland cotton.....	12	26
Corn.....	11	9
Rice.....	(¹)	14
Total.....	14	18

¹ No allotments.

Eligibility for price supports based on compliance with allotments.—To be eligible for price support under government programs, farmers are required to comply with acreage allotments established for that crop for their farms. For wheat, cotton, and rice, marketing quotas went into effect, along with acreage allotments. Under the marketing quotas, farmers who harvested acreages of these crops in excess of their acreage allotments were subject to penalty payments on excess production, except under specified conditions.

OVERALL EFFECTS OF PROGRAMS

Production of allotment crops decreased.—Production of wheat, cotton, and rice was reduced under allotments, although not as much as acreages because yields per acre increased. Changes for the United States as a whole were:

	Harvested acreage (percent)	Total pro- duction (percent)	Yield per acre (percent)
Wheat, 1953 to 1955.....	—30	—20	+15
Cotton, 1953 to 1955.....	—31	—11	+28
Corn, 1953 to 1955.....	—1	(¹)	+1
Rice, 1954 to 1955.....	—28	—17	+16

¹ No change.

Reductions in the acreages of cotton, wheat, and rice were as large as or larger than those called for by national acreage allotments, because most farmers complied with acreage allotments for these crops. Only 40 percent of the farmers in the commercial corn area complied with corn allotments in 1954 and 51 percent in 1955. As marketing quotas were not in effect for corn, many farmers continued to grow as many or more acres as in 1953.

Yields of wheat, cotton, and rice were higher in 1954 and 1955 than in 1953 chiefly because of more favorable weather in the two later years. Some of the increase in yields was due to the use of more fertilizer, better cultural practices, and, in the case of cotton, to the use of the best land.

Production of nonallotment crops increased.—Under the acreage-allotment programs, farmers were free to put the land diverted from allotment crops to other uses. In both 1954 and 1955, farmers used most of the diverted acreage for other harvested crops; only a small percentage was used for pasture and fallow. From 1953 to 1955, when

both the planted and harvested acreage of the 4 allotment crops decreased by nearly 29 million acres, the acreage of other field crops increased by about 27 million acres (fig. 2).

Most of the diverted land was used for 7 crops—oats, barley, sorghum, soybeans, flaxseed, rye, and hay. For these crops, the percentage changes in harvested acreage, production, and yield from 1953 to 1955 were:

	Harvested acreage (percent)	Total pro- duction (percent)	Yield (percent)
Oats.....	+4	+30	+25
Barley.....	+66	+61	—3
Grain sorghum.....	+105	+113	+4
Soybeans for beans.....	+26	+38	+9
Flaxseed.....	+10	+11	+1
Rye.....	+49	+61	+8
All tame hay.....	+3	+7	+3

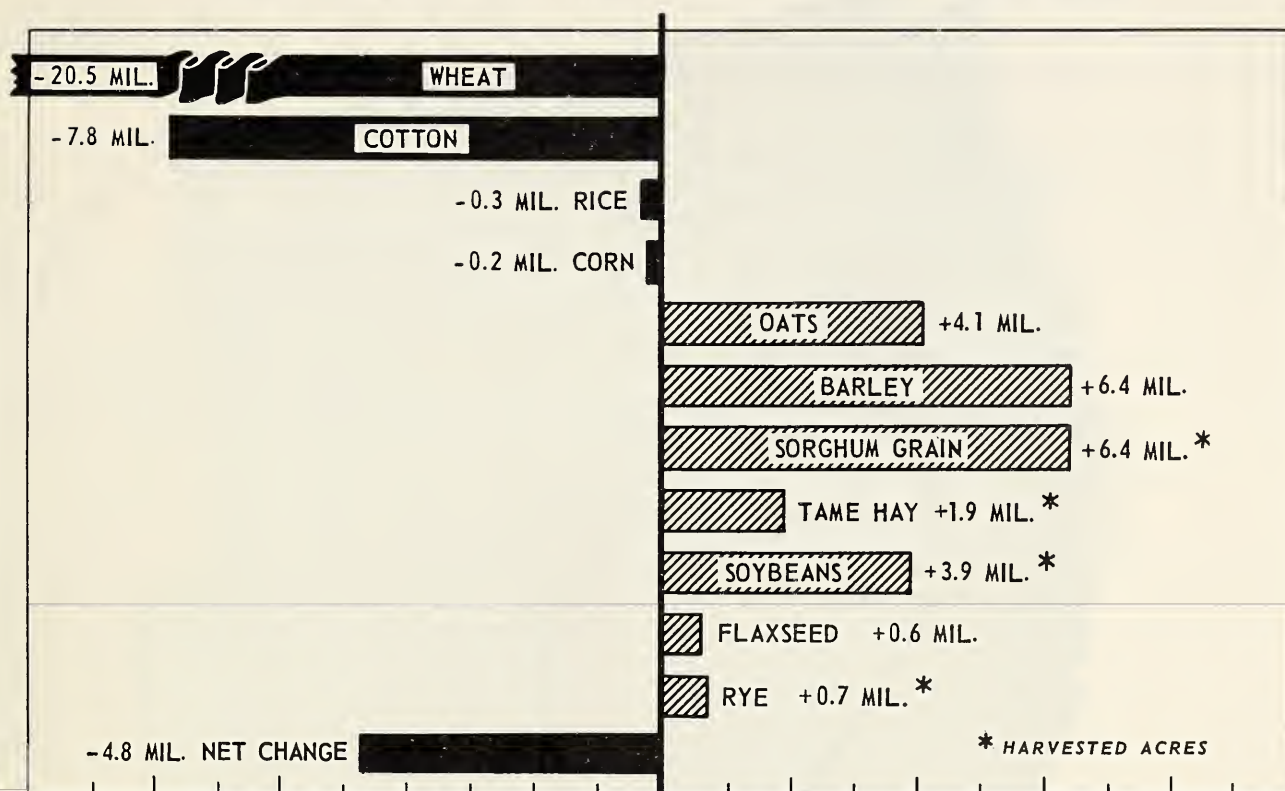
Better weather and the use of more intensive cultural practices were the two main reasons for the higher yields of these 7 crops in 1955. In addition, much of the land that was shifted from allotment crops to these crops was more productive than the land normally used for these nonallotment crops.

Not much land was diverted to crops other than those listed above. From 1953 to 1955, the total harvested acreage of commercial vegetables, for example, decreased 3 percent and that of potatoes 8 percent. There were small increases in acreages of sweetpotatoes in the South and dry edible beans and peas in the West; some of the land previously used to grow cotton and wheat may have been used for these crops.

Little change in total crop production.—Total crop production from both allotment and non-

1955 Compared with 1953

CHANGES IN CROP ACRES



U. S. DEPARTMENT OF AGRICULTURE

NEG. 56 (5) - 574 AGRICULTURAL RESEARCH SERVICE

Figure 2.—The total planted acreage of the 4 allotment crops (wheat, cotton, corn, and rice) decreased about 29 million acres while that of other field crops increased about 27 million acres.

allotment crops did not change much with the shifts in land use that took place with acreage-allotment programs. The acreage of cultivated crops did not change much except in the South, where cotton was greatly reduced (fig. 3). Percentage changes in the total production of allotment crops, and of the nonallotment crops which utilized most of the diverted acreage, were:

	1953 to 1954 (percent)	1953 to 1955 (percent)
4 allotment crops.....	-11	-8
7 nonallotment crops.....	+16	+23
11 crops, combined.....	-3	+1

In most States in the eastern half of the country, total production of the 11 crops increased be-

cause the expansion in nonallotment crops more than offset the reduction in allotment crops. In the South, higher yields for cotton helped to prevent decreases in total crop production. In most Western States, however, expansion of the non-allotment crops was not large enough to offset reduction of the allotment crops; therefore, total production of the 11 crops decreased generally in the western half of the United States.

Total value of crop production decreased.—The total value of crop production⁴ decreased from 1953 to 1955, mainly because of lower farm prices.

⁴ As used here, value of production is total production of each commodity times farm price.

CHANGES IN CROP ACRES, 1953 TO 1955 By Regions

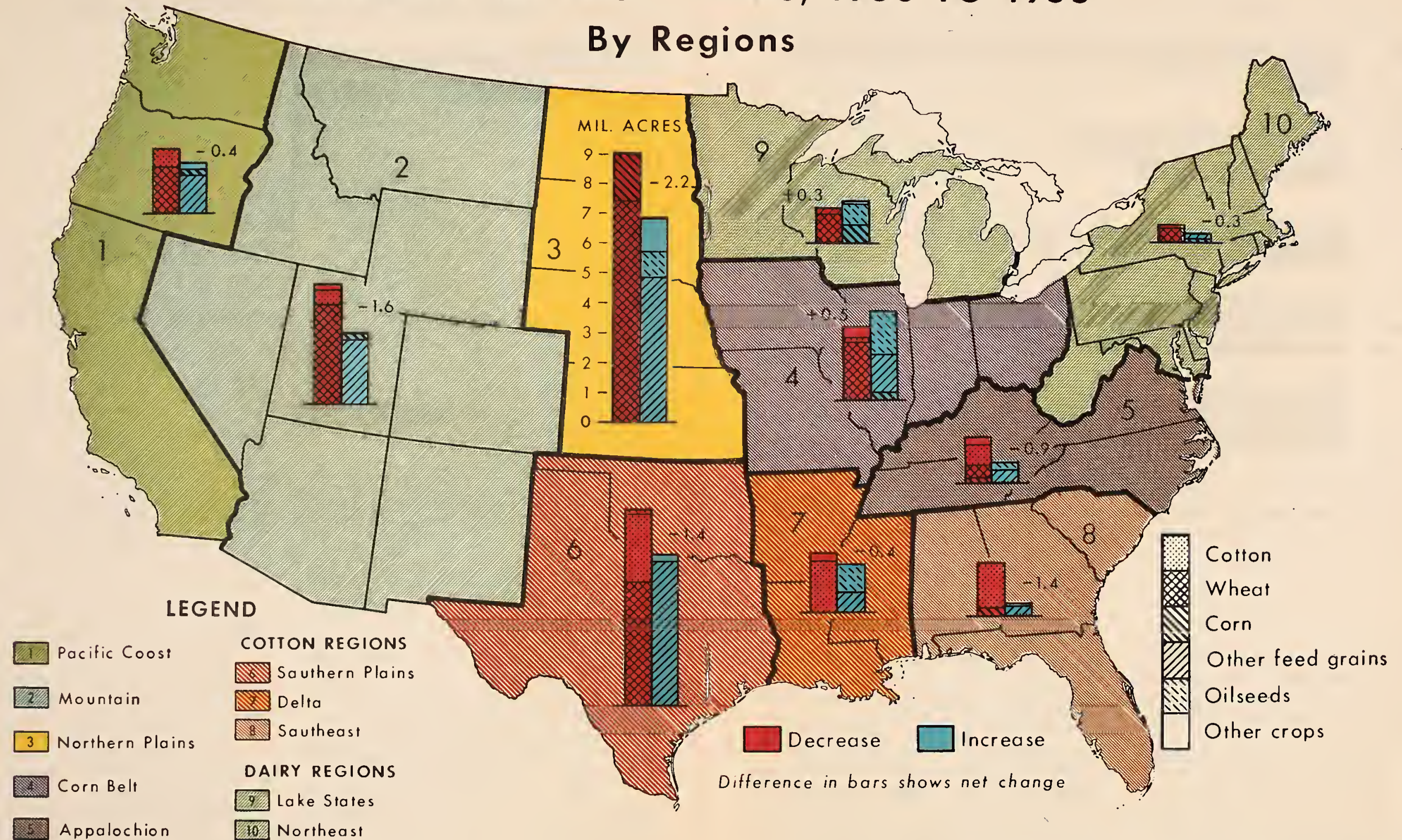
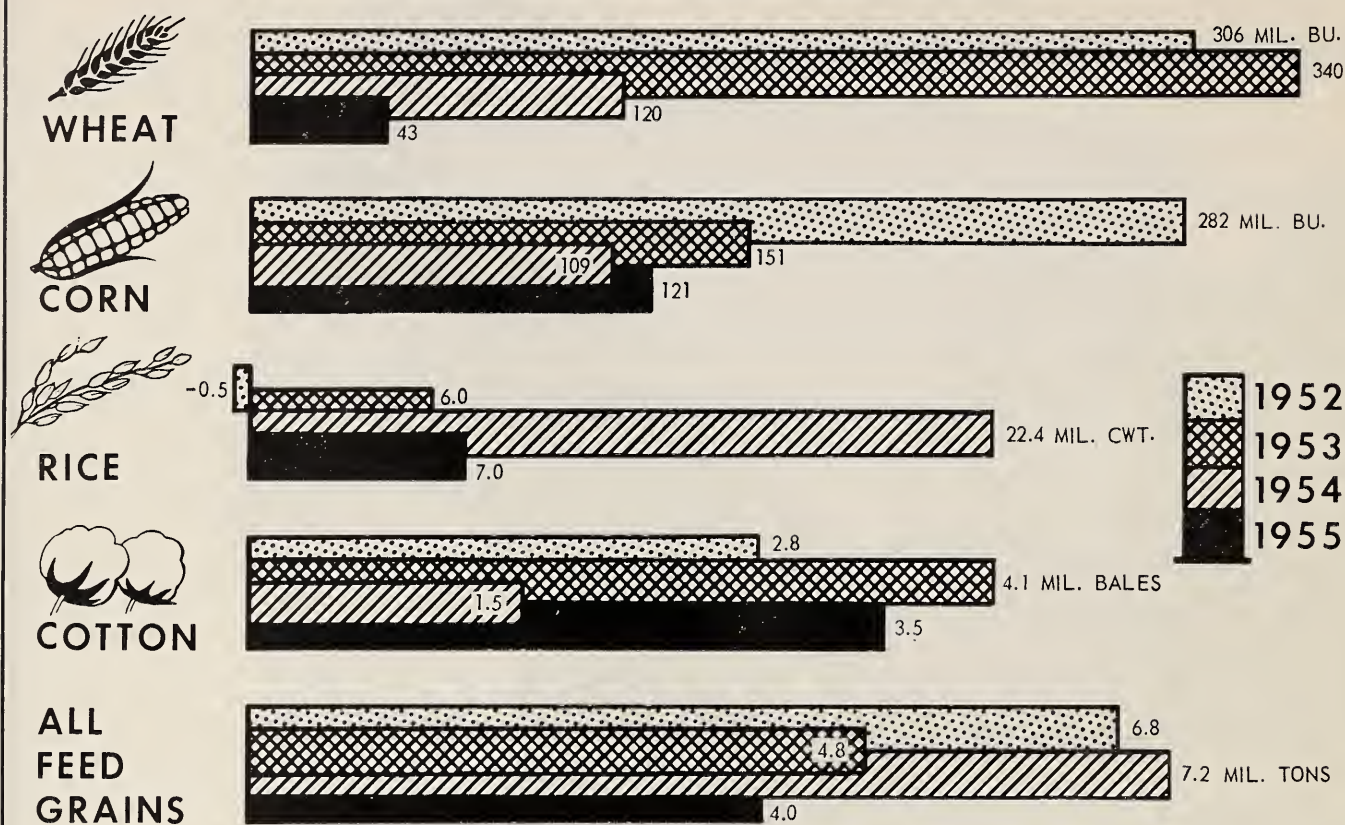


Figure 3.—The diversion of land from allotment to nonallotment crops varied between regions. Largest diversions were in the Great Plains and Western States. In the Corn Belt and Lake States, there were net increases in land used for crops.

Annual Change

CARRYOVER STOCKS



U. S. DEPARTMENT OF AGRICULTURE

NEG. 56 (5) - 2152 AGRICULTURAL RESEARCH SERVICE

Figure 4.—The rapid increase of carryover stocks of most allotment crops was checked with acreage allotments in 1954 and 1955. Additions to stocks of feed grains, however, increased.

Part of the decrease, however, was a result of the shift from allotment crops to lower value non-allotment crops. The percentage changes from 1953 to 1955 in average prices and total value of production were:

	Average prices (percent)	Total value of production (percent)
4 allotment crops.....	-6	-14
7 nonallotment crops.....	-13	+6
Total, 11 crops.....	-9	-8

As shown above, farm prices of allotment crops did not decrease as much as those of nonallotment crops. The average price of cotton was 2 percent higher in 1955; but lower prices for corn and rice,

together with less production from the 4 allotment crops, caused the total value of these crops to decrease by 14 percent. Prices of nonallotment crops decreased much more than those of allotment crops but their total value increased because of the larger production.

The total value of the 11 crops decreased in most States from 1953 to 1954 and from 1953 to 1955. There was little change in the Mississippi Delta States from 1953 to 1955 because large increases in production of nonallotment crops offset reductions in production of cotton and rice. However, in the Northern Plains, the total value of the 11 crops decreased by 15 percent during this period. In

other regions, reductions were close to the national average of 8 percent.

Additions to carryover stocks decreased.—Carryover stocks of wheat, cotton, rice, and corn have continued to increase, though at a generally declining rate. Additions to carryover stocks of wheat, cotton, and corn from the 1954 crops were much less than additions from the 1952 and 1953 crops; additions from the 1955 crops of wheat and cotton are also expected to be less than the additions from the 1953 crop. Additions to the carryover stocks of rice from the 1955 crop are expected to be much less than stocks added from the 1954 crop (fig. 4).

The carryover stocks of the 4 allotment crops at the beginning of the marketing year for 5 years are estimated as:⁵

Unit	1952	1953	1954	1955	1956
Wheat—million bushels—	256	562	902	1, 022	1, 080
Cotton—million bales—	2. 8	5. 6	9. 7	11. 2	14. 7
Rice					
million hundredweight—	2. 0	1. 5	7. 5	29. 9	37. 0
Corn—million bushels—	487	769	920	1, 029	1, 150
Feed grains, including corn					
million tons—	20	27	32	39	43

Carryover stocks for most of the allotment crops would have been even greater if export and other disposal programs had not been in effect.

Although carryover stocks of feed grains (corn, oats, barley, and sorghum grain) increased to record levels in 1955 and probably will exceed the 1955 level in 1956, the required investments in total CCC stocks will be held down because the value of additions to stocks of feed grains from 1954 and 1955 crops was less than the prospective additions to stocks of wheat, cotton, and rice without the acreage-allotment programs.

Expansion in grain-consuming livestock.—The total number of animal units⁶ of grain-consuming livestock was 6 percent larger in 1955 than in 1953, but remained about the same for roughage-consuming livestock. There were substantial increases in numbers of pigs raised and cattle fed, but the number of chickens raised decreased.

Much of the expansion in livestock production would have taken place even if there had been no shift from allotment to nonallotment feed crops.

⁵ Data for 1954 and 1955 are preliminary, those for 1956 are forecasts.

⁶ A grain-consuming animal unit is one average (U. S.) milk cow, or its equivalent in other livestock, in terms of quantities of feed grains and other concentrates consumed.

Numbers of grain-consuming livestock were at a cyclical low point in 1953. Nevertheless, expansion in production of feed and the lower prices for feed grains probably encouraged some expansion in livestock production. All of the increase in livestock production that took place would have been possible with feed production maintained at the 1953 level. In that case, however, stocks of feed grains would have been reduced.

A further expansion in livestock production is likely if acreage allotments and the expansion of nonallotment feed crops are continued. Grain concentrates produced in 1955 would feed about 2 percent more grain-consuming livestock than was fed in 1955.

Farm incomes supported.—Although the total value of crop production decreased from 1953 to 1955, it would have decreased even more if prices had not been supported by government programs and if production of wheat and cotton had been continued at the 1953 level and that of rice at the 1954 level. Prices of allotment crops would have been much lower, and the total value of these crops would have been less.

Farm income from crops would have been greater in 1954 and 1955 than in 1953 if production of allotment crops had been continued at 1953 levels and prices supported at the levels that actually prevailed in 1954 and 1955. But under the same marketing conditions, this higher level of production would have meant even larger accumulations of stocks of wheat, cotton, and rice. If disappearance of these commodities into domestic and export markets had remained unchanged, we might have accumulated an additional 400 million bushels of wheat and 4.6 million bales of cotton from the 1954 and 1955 crops.

Since 1953, land and other resources have been transferred from producing the 4 allotment crops for storage to producing feed crops other than corn, and soybeans, flaxseed, rye, and hay. As production of nonallotment crops expanded on diverted acres, the volume of allotment crops going into storage declined. The total volume of farm production marketed became larger. Prices of farm products generally declined; production expenses did not change much; and net incomes from crops decreased.

Little effect on major land use.—Although important shifts in acreages of some crops have taken place with acreage-allotment programs during the last 2 years, these shifts have had little effect on

the major uses of land. The total planted acreage of field crops decreased by only 1 percent from 1953 to 1955, and comparatively little land was shifted from harvested crops to pasture. Only a small part of the land taken out of wheat and cotton was used to expand the acreage of hay; the total harvested acreage of tame hay increased by only 3 percent, and much of this was small grains cut green for hay.

Much of the land diverted from cotton was used to grow other cultivated crops, such as soybeans and corn. In the Corn Belt, the acreage of corn decreased very little, while that of soybeans increased. The total acreage of cultivated crops increased in that region. In the Great Plains and other regions of the West, land shifted from wheat has been planted mainly to sorghums, oats, and barley. Production of improved pasture and forage crops has been increased very little by allotment programs.

Longer term aspects of programs.—During the last 2 years, acreage-allotment programs affected total farm output very little, although its composition was modified. Nor did a general reduction

in prices of farm products during the 2-year period result in a reduction in the total volume of farm output.

Allotment programs of the last 2 years have caused comparatively few farmers to shift to soil-building systems of farming. Much of the land diverted from wheat and cotton has been used to expand the current output of feed grains and oil-seed crops but only a small part of the diverted acreage has been shifted to hay and pasture.

Most farmers have been reluctant to make the capital investments required to improve pastures and produce more forage. Such changes in their farming systems would reduce their farm output temporarily. On the other hand, over the next 5 or 10 years these changes would help to achieve both a better balance of total farm output with market outlets and greater conservation and improvement of soil resources. Farmers, however, are uncertain about future acreage-allotment programs. This uncertainty concerning the programs and a desire to continue to produce their usual acreages of allotment crops have tended to impede a shift to pasture and forage production.

EFFECTS IN SELECTED AREAS

Effects on Cotton Farms

To obtain information about the effects of acreage allotments, surveys were made in the summer of 1955 in 5 important cotton-producing areas. The areas, which are representative of widely different conditions under which cotton is grown, are: The Mississippi Delta; the Clay Hills of Mississippi and Tennessee; the Southern Piedmont of South Carolina and Georgia; the High Plains of Texas; and the San Joaquin Valley of California.

Farmers complied with allotments.—Most farmers complied with acreage allotments for cotton, or they intended to comply by destroying before harvest any acreage in excess of their allotments. Many farmers planted slightly more cotton than was called for by their allotments in order to make sure that their harvested acreages would be as large as their allotments. Only a few, mainly in the Southern Piedmont area, underplanted their allotments.

Land shifted from cotton to other uses.—Compliance with allotments required large reductions in the acreages of cotton grown. Average reduc-

tions in the planted acreage of cotton from 1953 to 1955 for the farms surveyed were as follows:

	Change in acreage per farm (acres)	Percentage change in acreage (percent)
Delta (259 farms)	—41	—39
Clay Hills (150 farms)	—11	—41
Southern Piedmont (247 farms) ..	—8	—36
High Plains (150 farms)	—35	—16
Upper San Joaquin Valley (29 farms)	—51	—46
Western San Joaquin Valley (21 farms)	—225	—38

The percentage reduction for the High Plains was relatively small because unfavorable weather held down the acreage planted to cotton in 1953.

Land diverted from cotton was used mainly to grow other crops. Not much land was shifted to hay or pasture. Livestock numbers changed very little. Acreages of idle land increased substantially in the Southern Piedmont and Clay Hills where it is difficult to shift quickly to other crops. On most farms, the smaller allotment acreage of cotton was grown on the land best adapted to the crop.

The main uses of land diverted from cotton in order of importance in each area were as follows:

Delta: Soybeans, oats, and corn.

Clay Hills: Corn, and idle cropland.

Southern Piedmont: Pasture, idle cropland, and oats.

High Plains: Grain sorghum.

San Joaquin Valley: Barley, grain sorghum, and alfalfa seed.

Crop yields increased.—Yields averaged higher in 1955 than in 1953, chiefly because of more favorable weather. Use of more fertilizer per acre, more insecticides to control pests, and better cultural practices also contributed to higher yields.

Much of the increase in cotton yields might have taken place if there had been no allotment programs. But undoubtedly, use of fertilizer and other yield-increasing practices was accelerated by the program. And concentration of the smaller cotton acreage on the best land helped to increase yields.

Net incomes increased.—Net farm incomes were higher in 1955 than in 1953 because of higher yields for cotton and other crops, expansion in acreages of alternative crops, and lower production expenses with fewer acres of cotton. Percentage increases in net farm income (returns to farmers from their labor, management, land, and other capital investments in farming) for representative cotton farms from 1953 to 1955 were as follows:

	<i>Increase (percent)</i>
Mississippi Delta, small commercial family-operated farm.....	7
Mississippi Delta, large-scale farm.....	4
Clay Hills, average farm.....	20
Southern Piedmont, commercial family-operated farm.....	26
High Plains, commercial family-operated irrigated farm.....	20

With normal yields, less cotton means less income.—With normal yields and 1955 prices for products and production cost items, the shift of land from cotton to other crops like the shift that took place from 1953 to 1955 would have resulted in the following reductions in net income:

	<i>Decrease (percent)</i>
Mississippi Delta, small commercial family-operated farm.....	7
Mississippi Delta, large-scale farm.....	22
Clay Hills, average farm.....	18
Southern Piedmont, commercial family-operated farm.....	12
High Plains, commercial family-operated farm, irrigated.....	34
High Plains, commercial family-operated farm, nonirrigated.....	28
San Joaquin Valley, 80-acre potato-cotton farm....	10
San Joaquin Valley, large cotton farm.....	24

Cotton farmers could have maintained their net farm incomes at the levels realized in 1955 with lower prices for cotton had they been permitted to grow the same acreage of cotton as in 1953. In the representative situations listed above, net farm incomes could have been maintained at 1955 levels with prices of cotton 5 to 18 percent lower than in 1955 and with the same acreage of cotton as in 1953. Production of cotton on these farms, however, would have been from 20 to 56 percent larger than in 1955.

Number of cropper and share tenants decreased.—One-third or more of the cotton farmers in the Delta, Clay Hills, and Southern Piedmont had cropper and share-tenant labor in 1955. These farmers reported that many cropper and share-tenant families left their farms from 1953 to 1955, chiefly because of reductions in the cotton acreages. The percentages of all cropper and share-tenant families leaving between 1953 and 1955 were as follows:

	<i>Decrease (percent)</i>
Southern Piedmont.....	17
Clay Hills.....	21
Delta.....	34

Average incomes from crop production of the remaining cropper families on these farms did not change a great deal from 1953 to 1955, but had it not been for above-normal yields in 1955, incomes would have decreased greatly.

Effects on Wheat Farms

Farms in 4 specialized wheat areas were surveyed during the summer of 1955 to obtain information about the effects of acreage allotments. These areas are west-central Kansas, north-central North Dakota, north-central Montana, and the Palouse area of Washington. All but the Palouse area lie in or are adjacent to the Great Plains where variability in crop yields presents a special problem in connection with acreage-allotment and price-support programs. In such areas, crop production and farm incomes are affected more by weather and other crop hazards, particularly rust, than by acreage allotments and marketing quotas (fig. 5).

Farmers complied with allotments.—All the farmers visited in the North Dakota and Washington-Palouse areas complied with wheat allotments in 1955. Only 4 percent of the farmers visited in the Kansas area and 14 percent in the Montana

AREAS WITH HIGHLY VARIABLE YIELDS

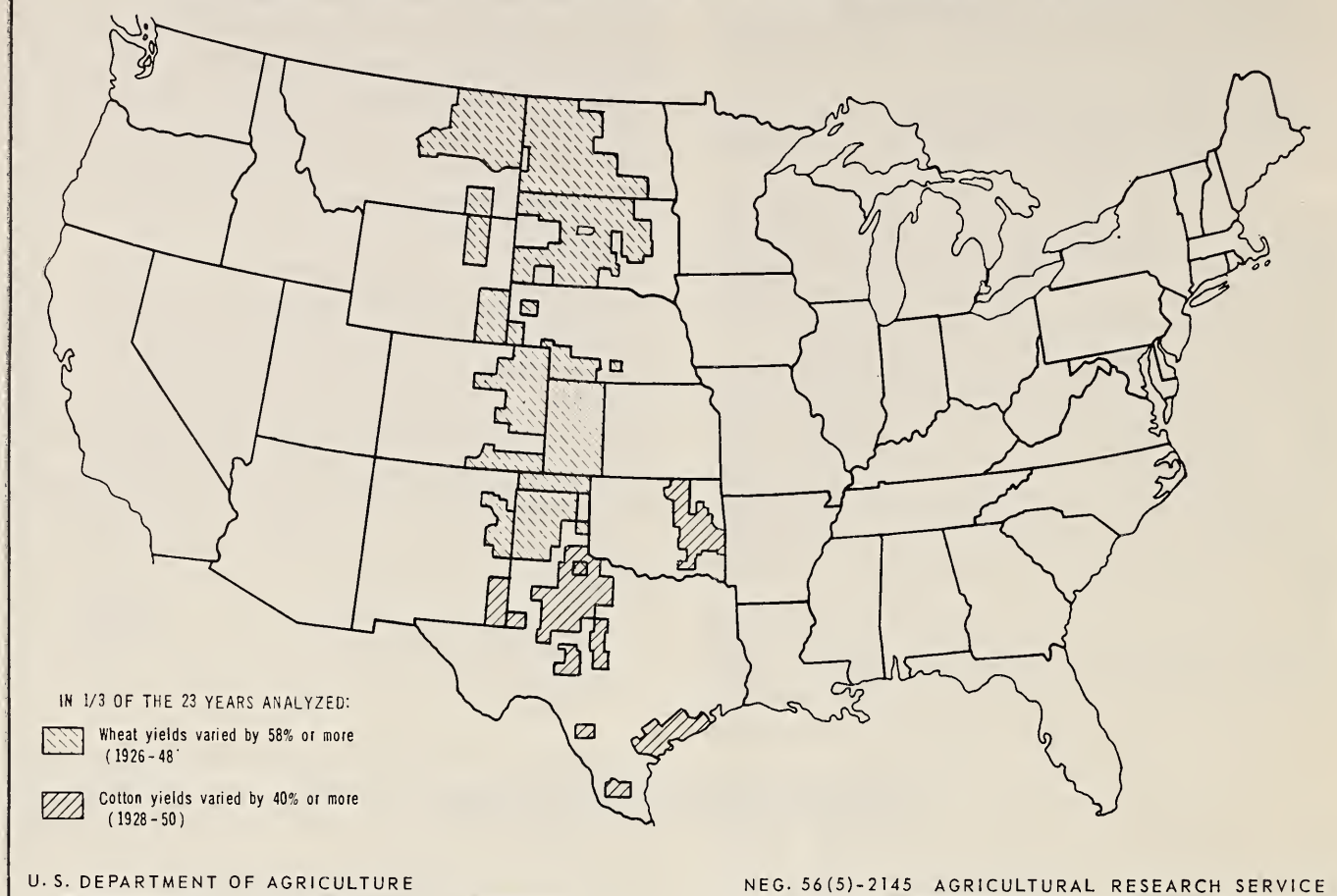


Figure 5.—In a number of the drier areas, crop production and farm incomes were affected more by weather than by acreage allotments and marketing quotas. In the cotton counties outlined, cotton yields varied by 40 percent or more, while in the wheat counties outlined, wheat yields varied by 58 percent or more from the average during one-third or more of the 23 years analyzed.

area did not comply. Some farmers who exceeded their allotted acreages of wheat in 1955 harvested 15 acres or less. Others said that yields were high enough so they could afford to pay marketing penalties on excess production, or that yields were low enough so that they would have no farm marketing excess and in turn would not have to pay any penalties. Many farmers planted more than their allotted acreages of wheat, but complied with allotments by not harvesting the excess acreage for grain. A few farmers in the Kansas and Montana areas underplanted their allotments.

Wheat acreages were reduced.—Large reductions in acreages of wheat were made in all areas.

Percentage changes in acreages, yields, and production of wheat for the survey farms from 1953 to 1955 were as follows:

	Change in harvested acreage (percent)	Change in yield (percent)	Change in production (percent)
West-central Kansas (417 farms)-----	-26	+65	+22
North-central North Dakota (376 farms)-----	-26	+76	+30
North-central Montana (134 farms)-----	-29	+30	-8
Washington-Palouse (93 farms)-----	-34	+9	-28

On most farms in Kansas and North Dakota, yields of wheat averaged much higher and production was larger in 1955 than in 1953 when

drought and other crop hazards reduced yields. Production of wheat decreased on most farms in Montana and Washington because yields did not increase enough to offset reductions in acreage.

Higher yields for wheat were due mainly to more favorable weather, but a part of the increase resulted from planting a larger proportion of the wheat on fallow land and from heavier applications of fertilizer. Shifts from spring to winter varieties of wheat also helped to increase yields in the Montana and Washington areas.

Diverted acres used mainly to grow other crops.—The main uses of land diverted from wheat in the order of their importance in each area were as follows:

West-central Kansas: Grain sorghum.

North-central North Dakota: Barley and flaxseed.

North-central Montana: Barley, fallow, and idle cropland.

Washington-Palouse: Barley, dry peas, and green-manure crops.

Farmers said that if there had been no allotments they would have grown more wheat and less of the other crops in 1955. The total acreage of wheat would have been about the same in 1955 as in 1953 in the Kansas and Washington areas, larger in the North Dakota area, and smaller in the Montana area.

Little shift to livestock.—Livestock numbers changed very little from 1953 to 1955 on the farms studied. Not much of the land diverted from wheat was used for hay or pasture. Most of the additional feed grains were produced for cash sale.

Changes in net returns differed.—Estimates were made of changes in net returns above direct expenses for land in wheat and associated fallow

and cover crops in 1953 on representative farms in the survey areas. Percentage changes in net returns (1) that actually took place from 1953 to 1955, and (2) that would have taken place as a result of changes in land use from 1953 to 1955, with normal yields and 1955 prices in both years, are as shown in the tabulation at left, below.

Net returns increased for some types of farms in the Kansas, North Dakota, and Montana areas, despite reductions in the acreage of wheat and lower prices (col. (1) of the tabulation at left, below). Crop production increased on these farms because yields were higher in 1955 than in 1953. However, net returns decreased on most wheat farms in the Washington-Palouse and Kansas areas and on many farms in other wheat areas.

Yields would have been higher on most farms in these areas in 1953 and lower on some farms in 1955 if average weather had prevailed. With normal yields and 1955 prices for products and production cost items, shifts in land use from wheat to other crops like the shift that took place from 1953 to 1955 would have caused reductions in net returns on most farms (col. (2) of the tabulation at left, below). On most wheat farms with prices like those in 1955, alternative crops are much less profitable than wheat.

Net returns would have been higher with more wheat.—Most farmers said that they would have grown more wheat in 1955 if there had been no acreage-allotment or marketing-quota programs. Production of wheat also would have been much greater and net returns would have been higher for most of the representative farm situations in 1955 if farmers had been permitted to grow as much wheat as they wanted and if prices had been supported as they were in 1955:

	(1) Actual change 1953 to 1955 (percent)	(2) Change with normal yields and 1955 prices 1953 to 1955 (percent)		Change from 1955 actual to 1955 with no allotments and price supports at 1955 levels (percent)
West-central Kansas farms:				
320 acres, hard land.....	+183	-25	320 acres, hard land.....	+9
480 acres, sandy land.....	-62	-13	480 acres, sandy land.....	-1
480 acres, specialized.....	-65	-6	480 acres, specialized wheat.....	+54
960 acres, wheat.....	-61	-4	960 acres, specialized wheat.....	+40
North-central North Dakota farms:				
650 acres, hard wheat.....	+83	-11	650 acres, hard wheat.....	+15
600 acres, durum wheat.....	+198	-2	600 acres, durum wheat.....	+6
North-central Montana farms:				
520 acres, wheat-fallow.....	+1	-13	520 acres, wheat-fallow.....	+24
1,080 acres, wheat-fallow.....	-9	-19	1,080 acres, wheat-fallow.....	+33
Washington-Palouse farms:				
220 acres, wheat-fallow.....	-10	-24	220 acres, wheat-fallow.....	+11
980 acres, wheat-fallow.....	-11	-32	980 acres, wheat-fallow.....	+10
520 acres, wheat-conserving..	-20	-25	520 acres, wheat-conserving.....	+12
520 acres, wheat-recropping..	-28	-35	520 acres, wheat-recropping.....	+15

Farmers could have maintained net returns at levels realized in 1955 with lower prices if they had been permitted to grow more wheat.—Estimates for the representative farm situations indicate that incomes could have been maintained at 1955 levels with 1953 acreage and with prices of wheat ranging from no change to 24 percent lower than in 1955. But production of wheat on these farms would have been from 20 to 50 percent larger than in 1955. Production of feed grains, flaxseed, and some other crops would have been less.

Effects on Farms in the Commercial Corn Area

Surveys were made in three sections of the commercial corn area to obtain information about the effects of acreage allotments on corn and wheat on cash-grain, livestock, dairy, and poultry farms. The areas were: The cash-grain area of east-central Illinois; the livestock (cattle-feeding and hogs) area of east-central Iowa; and the dairy and poultry area of southeastern Pennsylvania. Corn is an important crop in all areas, but wheat is not important in the Iowa livestock area.

Compliance with allotments.—Many of the farmers interviewed did not comply with corn allotments; most farmers who had wheat allotments complied with them.

The percentages of farmers interviewed who complied with corn allotments in 1955 and the percentages of those who complied who said they did so to be eligible for corn price support, were:

	Complied with corn allotments (percent)	Complied with allotments to be eligible for price supports (percent)
Illinois, cash-grain area (233 farms)-----	44	65
Iowa, livestock area (136 farms)-----	42	32
Pennsylvania, dairy-poultry area (214 farms)-----	49	7

Most of the farmers who complied with wheat allotments said they wanted to be eligible for price support and to be allowed to market wheat without paying penalties. Most of the farmers who did not comply had no more than 15 acres in 1955 and therefore did not have to pay marketing quota penalties for excess production.

Relatively few of the farmers who complied with corn allotments in the Pennsylvania and Iowa areas did so in order to be eligible for price support on corn. These farmers said that the acreages they had planned to grow were no larger than their corn allotments. Most of the farmers

who did not comply with corn allotments said that they planned to use most of their corn for feed on their farms and therefore they were not interested in becoming eligible for price support. In the Illinois area, 71 percent, and in the Pennsylvania area, 74 percent, of the farmers complied with wheat allotments.

Changes in corn and wheat acreages.—There were small reductions in the total acreage of corn grown in each area from 1953 to 1955. Decreases in acreages of corn on farms whose operators complied with corn allotments were largely offset by increases on farms whose operators did not comply.

The acreage of wheat decreased by nearly a third in the two areas where wheat is grown—Illinois and Pennsylvania. In Pennsylvania, the total acreage of wheat decreased on farms whose operators did not comply with wheat allotments as well as on farms whose operators complied. In Illinois, decreases in wheat on farms whose operators complied with wheat allotments were partially offset by increases on farms whose operators did not comply.

Average changes made between 1953 and 1955 in acreages of corn and wheat by the farmers surveyed were as follows:

	Change in corn acreage (percent)	Change in wheat acreage (percent)
Illinois cash-grain area:		
Farmers who complied-----	-20	-44
Farmers who did not comply-	+9	+16
All farmers-----	-5	-34
Iowa livestock area:		
Farmers who complied-----	-13	-----
Farmers who did not comply-	+8	-----
All farmers-----	-1	-----
Pennsylvania dairy-poultry area:		
Farmers who complied-----	-17	-32
Farmers who did not comply-	+4	-7
All farmers-----	-2	-27

Other changes in land use.—Farmers who complied with corn allotments in the Illinois and Iowa areas grew more soybeans and oats, and, in Illinois, more hay and rotation pasture. Farmers who did not comply with corn allotments also grew more soybeans, but they reduced slightly the acreages in hay and rotation pasture.

In the Pennsylvania area, land taken out of corn and wheat was used for oats, barley, and hay and pasture.

Most farmers who complied with corn and wheat allotments said that the shift in acreages of the different crops grown would have been similar but less drastic than in 1955 if there had

been no acreage-allotment or marketing-quota programs.

Programs had little effect on the quality of land used to grow corn. The quality of land did not vary significantly on many farms and the farmers generally were more interested in maintaining crop rotations than in concentrating corn on their best land. The total acreage in permanent pasture did not change.

Changes in feed and livestock production.—There was a large increase in production of hogs and small increases in production of other livestock products from 1953 to 1955. These increases were due mainly to lower prices for feed grains in relation to prices of livestock products. Most farmers said that they made no changes in livestock production because of compliance with allotments. Total production of feed grains decreased on farms whose operators complied with corn allotments, but these decreases were more than offset by increases on farms whose operators did not comply.

Farmers generally applied more fertilizer on corn and wheat in 1955 than in 1953, but they did not attribute this change to allotment programs.

Changes in net incomes.—Estimates of net incomes for representative farm situations show that it was profitable for farmers who sell most of their corn to comply with corn allotments. It was not profitable for other farmers to comply—that is, unless they replaced their own corn with purchased corn. As the support price of corn was substantially higher than the market price, this practice would have been profitable for most farmers who had both the foresight to anticipate such a price spread and adequate facilities to seal their own corn and to handle an equal quantity of purchased corn. It was evident, however, that most of the farmers interviewed did not consider this to be an alternative and it was not so considered in the analysis of program effects on farm incomes.

Net farm incomes (returns to farmers from their labor, management, land, and other capital investments in farming) decreased on most farms from 1953 to 1955, mainly because of lower prices for farm products. However, net incomes decreased much less on cash-grain farms whose operators complied with corn allotments than on other types of farms. If there had been no corn-acreage allotments and no price supports and if normal yields had prevailed, the incomes of cash-grain farmers would have decreased considerably more than the incomes of most livestock farmers:

	Actual change in income 1953 to 1955 (percent)	With normal yields, change from 1955 actual to 1955 without allotments (percent)
Illinois, 200-acre cash-grain farm-----	-5	-40
Illinois, 160-acre dairy farm (sells corn)-----	-3	-9
Iowa, 200-acre cash-grain farm--	-9	-7
Iowa, 200-acre hog-beef farm---	-46	+33
Pennsylvania, 132-acre dairy farm-----	-50	+4
Pennsylvania, 80-acre poultry farm-----	-33	-9

If normal yields had prevailed in 1955, it still would have been profitable for cash-grain and other farmers who sell corn to comply with corn allotments. It would not have been profitable for most livestock, dairy, or poultry farmers to do so. The margin between the support price and the market price of corn was wide enough to make compliance profitable for most farmers who sold corn, but on farms from which no significant quantity of corn was sold, corn remained the most attractive crop.

Effects on Rice Farms

Studies were made of the effects of acreage-allotment programs on rice farms in southwestern Louisiana and in the Sacramento Valley of California. Rice was the main crop grown on the farms visited. Many of these farms grow no other crops.

Compliance with allotments.—Most farms complied with allotments. Some farmers overplanted, but they planned to comply with allotments before harvest. A few planted less than their allotments.

Changes in land use.—The survey farms in the southwestern Louisiana area had 20 percent fewer acres of rice in 1955 than in 1954. About 85 percent of the land diverted from rice was not cropped in 1955; however, much of this land was pastured. The remaining 15 percent was used to grow other crops, mainly for feed.

Farms in the Sacramento Valley area had about 15 percent fewer acres of rice in 1955 than in 1953. Most of the land diverted from rice on the highly specialized rice farms was left idle or fallowed. Other farms grew more barley, milo, or dry peas. Altogether, about half the land taken out of rice was fallow or idle in 1955.

There was little change in livestock numbers. However, in the Louisiana area, grazing land available per animal unit increased.

Higher yields per acre.—Yields of rice per acre increased 9 percent in the Louisiana area and 42

percent in the California area from 1954 to 1955. In 1954, yields of rice in California were well below average; they were lower than for any year after World War II except 1950.

Farmers in the Louisiana area applied about 8 percent more fertilizer per acre of rice in 1955 than in 1954. Farmers also reported an increase of about 8 percent in fertilizer applied per acre from 1953 to 1954 before acreage allotments and marketing quotas were in effect. Better seedbed preparation and heavier seeding rates helped to improve yields on some farms.

Farmers in the California area said that allotments had little effect on the quantity of fertilizer applied per acre. Higher yields were attributed to more favorable weather and, to a lesser extent, to increased planting on fallow and better land preparation.

Changes in net income.—Net farm income (returns to farmers from their labor, management,

land, and other capital investments in farming) was higher in 1955 than in 1954 for representative rice farms in both areas. However, increases in incomes on representative rice farms in the Sacramento Valley of California were much higher than for Louisiana farmers because of the larger increase in yields. Estimates of changes from 1954 to 1955 in net farm income that would have taken place if normal yields and 1955 prices had prevailed in both years, show that net incomes would have decreased from 8 to 20 percent for the representative farm situations with the reduction in acreage of rice:

	<i>Actual change in income (percent)</i>	<i>Change with normal yields and 1955 prices (percent)</i>
Southeast Louisiana:		
Medium-sized farm.....	+9	-11
Sacramento Valley, California:		
Rice-fallow farm.....	+82	-20
Rice-barley-fallow farm.....	+64	-15
Rice-bean-fallow farm.....	+63	-8